

ONLINE MEETING PLANNING SYSTEM WITH 3-NODE CONFIGURATION

SPECIFICATION

This U.S. Patent Application claims the priority of U.S. Provisional Application 60/232,940 filed on September 15, 2000, of the same title, and of which the present inventor was one of the named joint inventors.

TECHNICAL FIELD

This invention generally relates to an online system for group meeting planning, and more particularly, to one that provides facilities online for efficiently planning, booking, transaction and fulfillment of group travel arrangements and meeting activities at a local destination.

BACKGROUND OF INVENTION

Since the Internet was opened to the public in 1993, the highest commercial usage of it has consistently been for travel, i.e., purchasing airline tickets, renting cars, reserving hotel rooms, and obtaining information on and making arrangements for local activities at the destination. As more and more users have discovered the convenience and power of obtaining information and comparative pricing on the Internet, demand has increased for travel suppliers and distribution intermediaries to become more transparent with information, to offer customers more advantageous pricing, and to share savings and discounts for online purchases and group bookings. Travel companies have responded by

offering users more information, greater selection, and greater functionality and convenience in using their web sites. Today, airlines, hotels, car rental agencies, travel agencies, travel portals, travel-related online merchants and other distribution intermediaries are embracing the Internet as one of the most efficient and far reaching delivery systems for travel services and products.

5

Travel is one of the largest indirect service expenses for businesses, and corporate travel and meeting planning managers are demanding even greater efficiencies and savings in the use of online travel services. Forester Research estimates that business spending for online travel services will reach \$38 billion in 2003, and nearly one-third of the total will be purchased by corporate travel managers using managed purchasing solutions. In industry surveys, 82 percent of travel managers at large "early adopter" companies said they will buy all of their travel online by 2001. Internet-based travel services have responded, through consolidations and industry partnerships, with attempts to assemble the widest reach of travel services at the most advantageous pricing schedules to address the needs of this important market segment. An example of an Internet-based travel booking service that offers searching of consolidated databases of travel services, prices, and schedules is Bistravel.com, headquartered in Philadelphia, PA.

10
15
20
25

With increasing competition, falling prices, and lowered profit margins, online travel systems have had to include increasingly sophisticated functions and data intensive solutions, particularly for corporate travel managers. Online services are increasingly leveraging the advantages of an Application Service Provider (ASP) model to offer a completely outsourced, travel purchasing solution to users. The ASP model provides low implementation and maintenance costs at the user end and services delivered at high performance levels. An example of an online corporate travel booking site using the ASP model to provide sophisticated travel planning functions for corporate travel is GetThere.com, headquartered in Menlo Park, CA.

The travel booking ASP allows users with password authorization, including company employees connecting through a company intranet, to link to a travel planning site hosted on a secure ASP server and search extensive databases of products and services offered by travel suppliers and

5 distribution intermediaries for booking arrangements. While some ASP sites attempt to protect user data with password access or, in some cases, even encryption, they essentially are public sites because of the large number and diverse types of buyers and sellers that such consolidated sites try to bring together. The current ASP model thus has the disadvantage that it requires users to enter and store sensitive identification, personal, and financial information at the ASP site in order to enable the ASP provider to handle booking arrangements. Corporate travel managers are particularly reluctant to store employee data and company financial information at a web site that is not under their complete control.

10 As corporate travel bookings become increasingly commoditized, corporate travel managers increasingly want to integrate routine travel booking functions with other important functions they have responsibility for, such as the planning of corporate meetings, conventions, and exhibitions, targeting incentive travel to employees and preferred clients or customers, and making detailed hospitality and leisure activity arrangements at local destinations where such events are held. These 15 types of detailed meeting planning functions and destination arrangements have heretofore been handled by corporate meeting planners (CMPs) largely by telephone and direct personal contacts with local hotels, convention centers, vendors, service providers, etc. Some software packages have been developed which allow corporate meeting planners to manage lists of participating employees, company travel information, and planned local events and activities on a secure PC in a corporate intranet or standalone system. The output of these types of meeting planner software is usually in the form of 20 printed lists which can be used by the meeting planner to organize the various activities. An example of such meeting planner software is the PlanItDirect™ software offered by Destination Software, Inc., of Wailuku, Maui, Hawaii.

25 Where the local meeting arrangements are complex, the corporate meeting planner may hire a travel planning consultants (TPC) or destination management company (DMC) to organize the local arrangements, or may work directly with the hospitality or events manager of the hotel or host site where the event is to be held. For corporate incentive travel and client promotion events, an incentive company (ICO) may be hired to put together an employee or client-themed event that reflects the corporate purpose in providing the incentive reward. All of these types of planning functions require

the handling of personal employee or client data and/or company sensitive information which corporate meeting planners want to have tightly controlled in-house or released only to trusted contacts. Corporate travel managers and meeting planners have therefore been reluctant to upload and store such information with service companies via Internet, even at sites that are supposedly secure.

5

When group meeting events are transacted and fulfilled at the physical host site, it is very desirable that the personal employee or client data and/or company sensitive information assembled by the meeting planner during the planning of the event be able to be re-used for the countless activities and transactions encountered at the actual event. In this way, manifest lists of participating attendees can be prepared, updated, and sent to responsible persons without having to continually re-input the data for every activity. Similarly, it is desirable that conference materials, syllabi, notes, email, group messages, proceedings, and communications in general for that event, much of which is assembled by the group meeting planner beforehand, be made available online to authorized participants but secured from unauthorized persons.

10
11
12
13
14
15
16
17
18
1915
16
17
18
19
20

Some online ASP services, such as Event411.com, based in Marina del Rey, CA, offer sophisticated meeting planning and site hosting functions that allow groups to plan a meeting online and have the meeting information available online to participants of the meeting through a hosted group meeting site with personal web pages listing schedules and activities for each participants. However, such ASP services are accessed on the public Internet and may be vulnerable to unauthorized access, and typically require that users surrender all rights to the content that they post online.

SUMMARY OF INVENTION

25

It is therefore a principal object of the present invention to provide a system in which a meeting planner can enter personal, identifying, company, or other sensitive data in the planning of an event using facilities and resources accessed through the public Internet, and yet have control of the sensitive data to secure it from access by unauthorized persons. It is a further object that the meeting

planner be able to incorporate the sensitive data with sophisticated meeting facilitation functions that are accessible online to participants of the event, and yet keep the sensitive data secure from unauthorized access.

5

In accordance with the invention, an online meeting planning system is comprised of:

(a) a first node which is a secure computer protected from unauthorized access having a meeting planner application program for entering meeting planning data which includes: (i) personal, identifying, or other sensitive data of persons authorized as attendees at a meeting event; and (ii) non-sensitive group data which are unique to a group of authorized attendees at the meeting event and usable for meeting planning and other meeting facilitation functions for the group;

(b) a second node which is a public online site which receives only the non-sensitive group data uploaded from the first node and assembles meeting planning and other meeting facilitation functions in a unique meeting group program using the non-sensitive group data; and

(c) a third node which is a private online site which receives the assembled meeting group program downloaded from the second public node and the sensitive data of authorized attendees downloaded from the first secure node and combines the authorized attendee data together with the meeting group program to create a private meeting group site accessible only to authorized attendees of the meeting event.

10
15
20
25

20 In a preferred embodiment of the system, the first node is a secure PC on a corporate

intranet or standalone system behind a firewall which is used by a meeting planner to enter the sensitive data and non-sensitive group data for a planned meeting event. The second node is a public ASP site on the Internet which can assemble meeting planning and meeting facilitation functions for the group, such as generating attendee lists, activity participant lists, detailed meeting schedules, searchable meeting databases, attendee email, telephone number, and room number directories, attendee messaging, conference calling, and teleconferencing functions, e-commerce functions for attendees to make local activity arrangements, etc. The third node is a private meeting group site hosted on a local server in network proximity to the meeting event location or physical host site for high-speed, high-bandwidth access by authorized users. A system intermediary under control of the meeting planner can

be provided to monitor the progress and control the flow of programs and data among the 3 nodes of the system.

Using this 3-node system, the meeting planner at the secure intranet PC can retain control of the sensitive attendee data and only downloads it to the local meeting host server for access by authorized users during the meeting event. The meeting planner can use the sensitive attendee data to conduct manual or online travel booking arrangements from the secure intranet PC. The meeting planner uploads only the non-sensitive group data to the public ASP site for online planning and assembly of the meeting group program. The ASP site can link to other public travel aggregator or distribution intermediary sites without compromising any sensitive attendee data. When the meeting group program has been fine-tuned and is ready for use at the meeting event, it is downloaded from the ASP site to the local meeting host server where it can be populated with the sensitive attendee data.

The meeting planner can act as administrator of the hosted group meeting program site and provide different levels of access to users depending on what levels or what activities they are authorized to participate in. Access to the private meeting group site can also be authorized by the administrator for trusted service providers, such as the event manager for the hotel or physical host site, hired meeting planning consultant, incentive company, or destination management company, and/or trusted local vendors. The private meeting group site can be made the hub for a wide range of transactions, fulfillment functions, and group communications functions for the meeting event.

Other objects, features, and advantages of the present invention will be explained in the following detailed description of the invention with reference to the appended drawings.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a schematic diagram illustrating the overall architecture of the 3-node online meeting planning, booking, transaction, and fulfillment system of the present invention.

FIG. 2 is a schematic diagram illustrating the wide range of meeting facilitation functions that can be implemented in a meeting group program of the invention.

5 DETAILED DESCRIPTION OF INVENTION

10
15
20

The overall concept of the present invention is to employ a distributed data flow methodology for meeting planning data referred to herein as “triangulation”. In this methodology, sensitive and non-sensitive meeting data are generated at a Secure PC (first node) by a meeting planner. The sensitive data are kept under control of the meeting planner and used for executing secure transactions, such as for booking (purchase) airline tickets, renting cars, reserving hotel rooms, etc. for attendees. The non-sensitive data are exported to a Public ASP Portal (second node) that offers high-level meeting planning and facilitation functions. The Public ASP Portal uses the non-sensitive group data to assemble meeting facilitation functions in a unique meeting group program that can be posted at a Private Meeting Group Site (third node) for access by authorized users during the meeting event. The triangulation methodology allows the meeting planner the security of retaining control of the sensitive data, while at the same time assembling a unique meeting group program with high-level meeting facilitation functions from the Public ASP Portal, then combining the sensitive data with the assembled meeting group program at a Private Meeting Group Site so that it can be used for group facilitation and communications functions during the meeting event.

25

Referring to **FIG. 1**, a preferred implementation of the 3-node (triangulation) methodology employs meeting planner application software running on Secure PC behind a firewall on a corporate intranet or standalone system as the first, secure node. The meeting planner application software can be of any type that allows data entry of meeting data, including both sensitive data, such as personal and identification information of attendees of a planned meeting event, and non-sensitive group data, such as the event location, physical host site, preferred airline carriers, hotels, number of persons in the group, breakdown by age, gender, and employee/spouse/guest type, etc. The software can be of a very basic type, such as simple word processing or spreadsheet software to set up lists, or

more advanced, such as customized meeting planning software that are designed for specific client users, e.g., the corporate travel manager or meeting planner.

For typical corporate use, the Secure PC is a personal computer or workstation connected to a corporate intranet and protected by firewall functions of a network server. Larger companies typically have an in-house staff person, referred to herein as a corporate meeting planner (CMP), whose job function is to plan, organize, and assemble the resources and data for corporate meeting events. Such events can involve a small group to thousands of persons in company meetings, employee incentive events, product or sales promotion events, conferences, etc.

Another type of principal user for the meeting planner software at the Secure PC node is an association meeting planner (AMP). An association typically has hundreds or thousands of members, who fit the profile of “free and independent travelers” (FITs) when traveling for association events. The AMP typically runs the meeting planner software on a standalone system which is secure from outside access. The AMP generally requires more robust meeting planning software to meet the diverse needs of FIT-type travelers. Therefore, the AMP may prefer to perform meeting planning functions on a more robust, public ASP site using only non-sensitive group data (discussed further below), and instead leave it to the individual members to provide their personal data for their own individual airline bookings and hotel reservations.

The Secure PC meeting planner node may also be used by a destination management company (DMC) hired by a corporation or association to organize a meeting event for a group of employees or members at a local destination. The DMC typically runs the meeting planner software on a standalone system which is secure from outside access, and, like the AMP, may prefer to perform meeting planning functions on a more robust, public ASP site using only non-sensitive group data and leave it to the corporate or association travel manager to handle the booking arrangements with personal data from a secure node. Other possible users for the Secure PC meeting planner node include travel planning consultants (TPCs), travel agencies, incentive company planners (ICOs), etc.

The planning for group events typically starts with the selection of the event dates and the destination location of meeting group. The CMP may select event dates by accessing the schedules of key attendees on the company intranet. The meeting location may be selected based upon geographic proximity to the company or the targeted attendees, travel cost data, company preferences for a particular destination, hotel, or physical host site, etc. The CMP assembles the detailed meeting planning data at the Secure PC node facilitated by access to company personnel records, historical meeting planning records, etc. The meeting planning data can include very personal or sensitive employee data, such as names, home telephone numbers, home addresses, email addresses, expense account information, intranet passwords, personal preferences, credit card numbers for non-company expenditures, medical information, required medications, physical restrictions, etc. It can also include company proprietary information, such as new product information, release dates, planned events and announcements, technical product information, planned conference proceedings, meeting costing and budget analyses, etc. In the 3-node system, the CMP can input, manipulate, and maintain control of the sensitive data at the Secure PC behind the firewall for the company's intranet.

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

An example of a robust meeting planner system for use at a Secure PC for meeting data entry, assembly, and export is the PlanItDirect™ software offered by Destination Software, Inc., of Wailuku, Maui, Hawaii. The software has two key functions which facilitate implementation of the present invention: (1) exporting a fully-featured meeting group database to a remote online meeting group site for access by the meeting group during the actual event; and (2) cloning of the database for a meeting group to use in the field and then returning the database with modified data for inclusion in the company's master or archive database. These functions are described in detail in U.S. Provisional Applications 60/232,663 filed on September 14, 2000, 60/238,196 filed on October 4, 2000, and 60/294,535, filed May 29, 2001, in the names of John Hendrickson, Roxann Hendrickson, and Daniel Baillargeon, the priority of which are claimed in U.S. Patent Application 09/_____, filed September ___, 2001, which is incorporated by reference herein. In the appended **Table I**, some of the main advantageous features of the Destination Software meeting planner system are listed.

When the CMP has used the meeting planner software at the Secure PC node to create

a tentative meeting plan and proposed attendee list, the CMP may want to do further browsing on the Internet using the powerful search engines and aggregated databases on high-level ASP sites. In the 3-node triangulation concept of the invention, the CMP can browse and do price/cost comparisons on the public Internet sites using non-sensitive meeting group data exported from the meeting group database maintained at the Secure PC node. The sensitive (attendee personal and identifying) data are retained at the Secure PC so that they are not used or stored on the public sites.

The CMP can thus access a much wider range of resources and comparative pricing search engines on the public Internet. Recent public ASP sites aggregate huge volumes of travel data from diverse sources, global distribution services (GDSs) such as Amadeus™, Galileo/Apollo™, and Sabre™, country or local tourist bureaus, travel vendor marketplaces, etc. However, they typically require users to log in by providing identifying account information and entering personal and identifying information for each person in the travel group. For most CMPs, the storing of personal employee and other sensitive data on a public ASP site would be unacceptable. In addition, some of these public ASP sites have explicit Terms of Service policies that require users to relinquish all rights in their data stored on the site.

Therefore, in the preferred implementation of the present invention, a public ASP node is specifically designed as a Meeting Planner ASP Portal which interacts cooperatively with the CMP from the Secure PC to upload the non-sensitive group data and use it for enhanced meeting planning functions. In contrast to consumer-oriented travel sites, the Meeting Planner ASP Portal presents a planning interface and navigation schema designed specifically for group meeting planners and places powerful analyses tools at their disposal. With uploaded data of a tentative meeting plan, including the event location, physical host site, preferred airline carriers, preferred hotels, number of persons in the group, breakdown by age, gender, and employee/spouse/guest type, etc., the CMP can use the public Meeting Planner ASP Portal to conduct very wide-ranging searches of meeting resources and more effective cost/price comparisons. The ASP Portal can construct a group profile from the uploaded non-sensitive meeting group data and use it to search other public Internet sites without having to store any personal data on those sites.

If a unique identifier is needed as an individual handle for each group member, the CMP can assign, and the Public ASP Portal will incorporate, a unique number to each group member. Another type of unique non-personal identifier which conveniently carries over from the CMP's intranet directory would be to use the email handle for the employee with the last 2 or 3 letters of the last name deleted. For example, if the employee's email address in the company directory is "John.Smith@XYZCo.com", the unique identifier may be truncated to "John.Smi". The unique identifier handle can be used throughout the meeting planning stage on the Public ASP Portal. Later on, when a meeting plan has been finalized and a functional group meeting program has been assembled by the Public ASP Portal and downloaded to the Private Meeting Group Site, the CMP can download the personal data to the Private Meeting Group Site and the personal ID information can be substituted in for the unique identifier.

10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
130
135
140
145
150
155
160
165
170
175
180
185
190
195
200
205
210
215
220
225
230
235
240
245
250
255
260
265
270
275
280
285
290
295
300
305
310
315
320
325
330
335
340
345
350
355
360
365
370
375
380
385
390
395
400
405
410
415
420
425
430
435
440
445
450
455
460
465
470
475
480
485
490
495
500
505
510
515
520
525
530
535
540
545
550
555
560
565
570
575
580
585
590
595
600
605
610
615
620
625
630
635
640
645
650
655
660
665
670
675
680
685
690
695
700
705
710
715
720
725
730
735
740
745
750
755
760
765
770
775
780
785
790
795
800
805
810
815
820
825
830
835
840
845
850
855
860
865
870
875
880
885
890
895
900
905
910
915
920
925
930
935
940
945
950
955
960
965
970
975
980
985
990
995
1000
1005
1010
1015
1020
1025
1030
1035
1040
1045
1050
1055
1060
1065
1070
1075
1080
1085
1090
1095
1100
1105
1110
1115
1120
1125
1130
1135
1140
1145
1150
1155
1160
1165
1170
1175
1180
1185
1190
1195
1200
1205
1210
1215
1220
1225
1230
1235
1240
1245
1250
1255
1260
1265
1270
1275
1280
1285
1290
1295
1300
1305
1310
1315
1320
1325
1330
1335
1340
1345
1350
1355
1360
1365
1370
1375
1380
1385
1390
1395
1400
1405
1410
1415
1420
1425
1430
1435
1440
1445
1450
1455
1460
1465
1470
1475
1480
1485
1490
1495
1500
1505
1510
1515
1520
1525
1530
1535
1540
1545
1550
1555
1560
1565
1570
1575
1580
1585
1590
1595
1600
1605
1610
1615
1620
1625
1630
1635
1640
1645
1650
1655
1660
1665
1670
1675
1680
1685
1690
1695
1700
1705
1710
1715
1720
1725
1730
1735
1740
1745
1750
1755
1760
1765
1770
1775
1780
1785
1790
1795
1800
1805
1810
1815
1820
1825
1830
1835
1840
1845
1850
1855
1860
1865
1870
1875
1880
1885
1890
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
2025
2030
2035
2040
2045
2050
2055
2060
2065
2070
2075
2080
2085
2090
2095
2100
2105
2110
2115
2120
2125
2130
2135
2140
2145
2150
2155
2160
2165
2170
2175
2180
2185
2190
2195
2200
2205
2210
2215
2220
2225
2230
2235
2240
2245
2250
2255
2260
2265
2270
2275
2280
2285
2290
2295
2300
2305
2310
2315
2320
2325
2330
2335
2340
2345
2350
2355
2360
2365
2370
2375
2380
2385
2390
2395
2400
2405
2410
2415
2420
2425
2430
2435
2440
2445
2450
2455
2460
2465
2470
2475
2480
2485
2490
2495
2500
2505
2510
2515
2520
2525
2530
2535
2540
2545
2550
2555
2560
2565
2570
2575
2580
2585
2590
2595
2600
2605
2610
2615
2620
2625
2630
2635
2640
2645
2650
2655
2660
2665
2670
2675
2680
2685
2690
2695
2700
2705
2710
2715
2720
2725
2730
2735
2740
2745
2750
2755
2760
2765
2770
2775
2780
2785
2790
2795
2800
2805
2810
2815
2820
2825
2830
2835
2840
2845
2850
2855
2860
2865
2870
2875
2880
2885
2890
2895
2900
2905
2910
2915
2920
2925
2930
2935
2940
2945
2950
2955
2960
2965
2970
2975
2980
2985
2990
2995
3000
3005
3010
3015
3020
3025
3030
3035
3040
3045
3050
3055
3060
3065
3070
3075
3080
3085
3090
3095
3100
3105
3110
3115
3120
3125
3130
3135
3140
3145
3150
3155
3160
3165
3170
3175
3180
3185
3190
3195
3200
3205
3210
3215
3220
3225
3230
3235
3240
3245
3250
3255
3260
3265
3270
3275
3280
3285
3290
3295
3300
3305
3310
3315
3320
3325
3330
3335
3340
3345
3350
3355
3360
3365
3370
3375
3380
3385
3390
3395
3400
3405
3410
3415
3420
3425
3430
3435
3440
3445
3450
3455
3460
3465
3470
3475
3480
3485
3490
3495
3500
3505
3510
3515
3520
3525
3530
3535
3540
3545
3550
3555
3560
3565
3570
3575
3580
3585
3590
3595
3600
3605
3610
3615
3620
3625
3630
3635
3640
3645
3650
3655
3660
3665
3670
3675
3680
3685
3690
3695
3700
3705
3710
3715
3720
3725
3730
3735
3740
3745
3750
3755
3760
3765
3770
3775
3780
3785
3790
3795
3800
3805
3810
3815
3820
3825
3830
3835
3840
3845
3850
3855
3860
3865
3870
3875
3880
3885
3890
3895
3900
3905
3910
3915
3920
3925
3930
3935
3940
3945
3950
3955
3960
3965
3970
3975
3980
3985
3990
3995
4000
4005
4010
4015
4020
4025
4030
4035
4040
4045
4050
4055
4060
4065
4070
4075
4080
4085
4090
4095
4100
4105
4110
4115
4120
4125
4130
4135
4140
4145
4150
4155
4160
4165
4170
4175
4180
4185
4190
4195
4200
4205
4210
4215
4220
4225
4230
4235
4240
4245
4250
4255
4260
4265
4270
4275
4280
4285
4290
4295
4300
4305
4310
4315
4320
4325
4330
4335
4340
4345
4350
4355
4360
4365
4370
4375
4380
4385
4390
4395
4400
4405
4410
4415
4420
4425
4430
4435
4440
4445
4450
4455
4460
4465
4470
4475
4480
4485
4490
4495
4500
4505
4510
4515
4520
4525
4530
4535
4540
4545
4550
4555
4560
4565
4570
4575
4580
4585
4590
4595
4600
4605
4610
4615
4620
4625
4630
4635
4640
4645
4650
4655
4660
4665
4670
4675
4680
4685
4690
4695
4700
4705
4710
4715
4720
4725
4730
4735
4740
4745
4750
4755
4760
4765
4770
4775
4780
4785
4790
4795
4800
4805
4810
4815
4820
4825
4830
4835
4840
4845
4850
4855
4860
4865
4870
4875
4880
4885
4890
4895
4900
4905
4910
4915
4920
4925
4930
4935
4940
4945
4950
4955
4960
4965
4970
4975
4980
4985
4990
4995
5000
5005
5010
5015
5020
5025
5030
5035
5040
5045
5050
5055
5060
5065
5070
5075
5080
5085
5090
5095
5100
5105
5110
5115
5120
5125
5130
5135
5140
5145
5150
5155
5160
5165
5170
5175
5180
5185
5190
5195
5200
5205
5210
5215
5220
5225
5230
5235
5240
5245
5250
5255
5260
5265
5270
5275
5280
5285
5290
5295
5300
5305
5310
5315
5320
5325
5330
5335
5340
5345
5350
5355
5360
5365
5370
5375
5380
5385
5390
5395
5400
5405
5410
5415
5420
5425
5430
5435
5440
5445
5450
5455
5460
5465
5470
5475
5480
5485
5490
5495
5500
5505
5510
5515
5520
5525
5530
5535
5540
5545
5550
5555
5560
5565
5570
5575
5580
5585
5590
5595
5600
5605
5610
5615
5620
5625
5630
5635
5640
5645
5650
5655
5660
5665
5670
5675
5680
5685
5690
5695
5700
5705
5710
5715
5720
5725
5730
5735
5740
5745
5750
5755
5760
5765
5770
5775
5780
5785
5790
5795
5800
5805
5810
5815
5820
5825
5830
5835
5840
5845
5850
5855
5860
5865
5870
5875
5880
5885
5890
5895
5900
5905
5910
5915
5920
5925
5930
5935
5940
5945
5950
5955
5960
5965
5970
5975
5980
5985
5990
5995
6000
6005
6010
6015
6020
6025
6030
6035
6040
6045
6050
6055
6060
6065
6070
6075
6080
6085
6090
6095
6100
6105
6110
6115
6120
6125
6130
6135
6140
6145
6150
6155
6160
6165
6170
6175
6180
6185
6190
6195
6200
6205
6210
6215
6220
6225
6230
6235
6240
6245
6250
6255
6260
6265
6270
6275
6280
6285
6290
6295
6300
6305
6310
6315
6320
6325
6330
6335
6340
6345
6350
6355
6360
6365
6370
6375
6380
6385
6390
6395
6400
6405
6410
6415
6420
6425
6430
6435
6440
6445
6450
6455
6460
6465
6470
6475
6480
6485
6490
6495
6500
6505
6510
6515
6520
6525
6530
6535
6540
6545
6550
6555
6560
6565
6570
6575
6580
6585
6590
6595
6600
6605
6610
6615
6620
6625
6630
6635
6640
6645
6650
6655
6660
6665
6670
6675
6680
6685
6690
6695
6700
6705
6710
6715
6720
6725
6730
6735
6740
6745
6750
6755
6760
6765
6770
6775
6780
6785
6790
6795
6800
6805
6810
6815
6820
6825
6830
6835
6840
6845
6850
6855
6860
6865
6870
6875
6880
6885
6890
6895
6900
6905
6910
6915
6920
6925
6930
6935
6940
6945
6950
6955
6960
6965
6970
6975
6980
6985
6990
6995
7000
7005
7010
7015
7020
7025
7030
7035
7040
7045
7050
7055
7060
7065
7070
7075
7080
7085
7090
7095
7100
7105
7110
7115
7120
7125
7130
7135
7140
7145
7150
7155
7160
7165
7170
7175
7180
7185
7190
7195
7200
7205
7210
7215
7220
7225
7230
7235
7240
7245
7250
7255
7260
7265
7270
7275
7280
7285
7290
7295
7300
7305
7310
7315
7320
7325
7330
7335
7340
7345
7350
7355
7360
7365
7370
7375
7380
7385
7390
7395
7400
7405
7410
7415
7420
7425
7430
7435
7440
7445
7450
7455
7460
7465
7470
7475
7480
7485
7490
7495
7500
7505
7510
7515
7520
7525
7530
7535
7540
7545
7550
7555
7560
7565
7570
7575
7580
7585
7590
7595
7600
7605
7610
7615
7620
7625
7630
7635
7640
7645
7650
7655
7660
7665
7670
7675
7680
7685
7690
7695
7700
7705
7710
7715
7720
7725
7730
7735
7740
7745
7750
7755
7760
7765
7770
7775
7780
7785
7790
7795
7800
7805
7810
7815
7820
7825
7830
7835
7840
7845
7850
7855
7860
7865
7870
7875
7880
7885
7890
7895
7900
7905
7910
7915
7920
7925
7930
7935
7940
7945
7950
7955
7960
7965
7970
7975
7980
7985
7990
7995
8000
8005
8010
8015
8020
8025
8030
8035
8040
8045
8050
8055
8060
8065
8070
8075
8080
8085
8090
8095
8100
8105
8110
8115
8120
8125
8130
8135
8140
8145
8150
8155
8160
8165
8170
8175
8180
8185
8190
8195
8200
8205
8210
8215
8220
8225
8230
8235
8240
8245
8250
8255
8260
8265
8270
8275
8280
8285
8290
8295
8300
8305
8310
8315
8320
8325
8330
8335
8340
8345
8350
8355
8360
8365
8370
8375
8380
8385
8390
8395
8400
8405
8410
8415
8420
8425
8430
8435
8440
8445
8450
8455
8460
8465
8470
8475
8480
8485
8490
8495
8500
8505
8510
8515
8520
8525
8530
8535
8540
8545
8550
8555
8560
8565
8570
8575
8580
8585
8590
8595
8600
8605
8610
8615
8620
8625
8630
8635
8640
8645
8650
8655
8660
8665
8670
8675
8680
8685
8690
8695
8700
8705
8710
8715
8720
8725
8730
8735
8740
8745
8750
8755
8760
8765
8770
8775
8780
8785
8790
8795
8800
8805
8810
8815
8820
8825
8830
8835
8840
8845
8850
8855
8860
8865
8870
8875
8880
8885
8890
8895
8900
8905
8910
8915
8920
8925
8930
8935
8940
8945
8950
8955
8960
8965
8970
8975
8980
8985
8990
8995
9000
9005
9010
9015
9020
9025
9030
9035
9040
9045
9050
9055
9060
9065
9070
9075
9080
9085
9090
9095
9100
9105
9110
9115
9120
9125
9130
9135
9140
9145
9150
9155
9160
9165
9170
9175
9180
9185
9190
9195
9200
9205
9210
9215
9220
9225
9230
9235
9240
9245
9250
9255
9260
9265
9270
9275
9280
9285
9290
9295
9300
9305
9310
9315
9320
9325
9330
9335
9340
9345
9350
9355
9360
9365
9370
9375
9380
9385
9390
9395
9400
9405
9410
9415
9420
9425
9430
9435
9440
9

communication functions, e-commerce functions with sponsored vendors, etc. A broader itemization of high-level meeting facilitation functions that can be provided by the Meeting Planner ASP for a meeting group program is shown in **FIG. 2**. These high-level functions require very robust software programs which cannot be assembled and integrated by the CMP separately. Licensing such programs from an ASP can greatly reduce the capital and implementation costs to the individual company, while providing the most updated technology and specific expertise to the CMP from the ASP site.

ASP sites typically do all the backend work to assemble and integrate the selected program modules to run seamlessly for the client. The client typically only needs to select which meeting facilitation functions it wants for the Private Meeting Group Site to be used during the meeting event. The client selections can be conveniently made online by marking checkboxes for the functions and specifications desired. As these functions are known and commercially available in the IT industry, they are not described in further detail herein. Through the planning interface to the ASP Portal, the CMP is also directed to select the overall appearance, display presentation, and interface options of the pages of the Meeting Group Site from menu choices and standard templates offered by the ASP Portal. When the final Meeting Plan has been assembled by the CMP on the ASP Portal Site, it can then be downloaded to the online location selected by the CMP for the Private Meeting Group site. When the meeting has ended, the meeting group program can be erased by the ASP, or disabled from further use, or saved by the client company for possible future use.

The Private Meeting Group Site is an online site that is not accessible to unauthorized users. At the most simplistic level, it can be a site hosted on a server anywhere on the public Internet that requires a security procedure to validate authorized users, such as using a password. This can be implemented at the lowest cost, but offers only a low level of security. In addition, the response speed and scalability for large numbers of users will be low since accesses and responses will have to travel through the logjams of the public Internet. At a mid-range level, it can be a private site that is unregistered in the public Internet directories that is hosted on a network “edge” server in network proximity to the meeting location. This would greatly increase the speed and scalability of response as the site could be accessible only “one hop” away from the user’s access point (dial-up or ISP

connection) and lower cost broadband channels can be used for the “last mile” connections. At a high level of security and access, the Private Meeting Group Site can be a destination access point on a virtual private network (VPN). This would allow the Private Meeting Group Site to be connected to the company intranet and other private access points on a shared data network, thereby allowing meeting participants controlled remote access to the company’s databases and also access by users on the company intranet to participate in the online Meeting Group Site.

A VPN network typically consists of authenticated and encrypted tunnels over a shared data network. These are usually IP networks, the Internet being the most common example. The tunnels are set up between a network access point and a tunnel terminating device on the destination network. VPNs are commonly used by corporations looking to tunnel their corporate data through the Internet to provide network access. The function of the network access point is to encapsulate packets sent by the remote user so that the data travels securely over the shared network. Current implementations use different tunneling protocols depending on whether the data transfer is geared toward ISPs and has provisions for call origination and flow control, or to be initiated from a VPN-enabled client computer independent of the ISP. Data security may be provided at different levels of security with the accompanying overhead costs. A lightweight implementation, for example, provides strong authentication of each packet and ensures data integrity, while a higher-overhead implementation adds encryption of the data. Besides security, VPNs can provide large cost savings for remote users accessing a home network, since they will be able to gain ubiquitous local dial-up connectivity to distant networks at low cost.

Thus, in the preferred implementation of the invention, the Private Meeting Group Site is hosted on a network edge server in network proximity to the meeting location, and the edge server is set up as a destination access point on a VPN connected to the company intranet and/or private access points on the company shared data network. With some tradeoff in cost, this type of configuration would provide all the advantages of response speed, scalability, low access costs, data security, access by meeting participants to the company databases, and remote participation by company user in the meeting group site (including videoconferencing). The configuration of the edge server depends on

how reliable and scalable the site needs to be with cost tradeoff as a limiting factor.

Access to the VPN can be given to other trusted parties that the CMP may want to have involved in the organization and execution of the meeting event. Particularly for large meetings of hundreds or thousands of attendees, providing access for the local destination management company and/or the hotel meeting (event) planner to the meeting group data and meeting facilitation functions would allow them to carry their functions much more readily and without laborious data re-entry. For example, hotel guest lists, meeting scheduling lists, activity participant lists, transportation and portage manifest lists, etc., can all be accessed, updated, and printed out from the online Meeting Group Site. The site can also greatly facilitate real time communication between all of the parties. The site can also serve as the e-commerce hub for local bookings, transactions, and fulfillment of activities and purchases from the hotel, event host, third party providers and vendors.

Wireless access by meeting attendees to the Private Meeting Group Site can also be provided by enabling the site to communicate with switches for cellphones and other wireless devices using the Wireless Application Protocol (WAP). The WAP-enabled device would have to subscribe to a cellular service provider who has local coverage. In the future, advanced locally-based wireless networks can be set up, such as the short-range wireless system proposed by the Bluetooth consortium.

As shown in **FIG. 1**, coordination of data flows between the 3 nodes of the invention system can be carried out by a system intermediary under control of the meeting planner. For example, if for security reasons it is desired that the ASP site not have access to the Private Meeting Group Site, the final meeting group program can be sent from the ASP site to the system intermediary, and from there downloaded to the Private Meeting Group Site by the meeting planner at the time that the sensitive data is downloaded from the Secure PC for the Private Meeting Group Site. The system intermediary can also perform access control functions for the VPN for data exchanges between the company shared data network and the Private Meeting Group Site. In the latter case, the system intermediary could be a network server on the corporate intranet.